Empirical Investigation of the CRM Concept in the Jordanian Context: The Case of Banks and Financial Institutions

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Abstract
The purpose of this study is to develop a CRM model and empirically test its underlying constructs in the banking and financial sector in Jordan. The empirical data was collected from a convenient sample of 141 banks and financial institutions, drawn from three major Jordanian cities (Amman, Irbid, and Al-Zarqa). A drop-off method of data collection was used (Aaker et al. 2004). The findings show that Jordanian banks and financial institutions were likely to have a clear CRM strategic vision with specific goals and programs, possess necessary resources to establish CRM, be able to manage CRM programs, and use two way communications to handle CRM. Nevertheless, the analysis unveiled that these firms were not likely to have a sufficient marketing database, nor customer intelligence, with little motivation to either measure effectiveness of CRM programs or take actions to improve an unpopular CRM strategy. Further analysis of the findings indicated that the CRM concept did not seem to be well incorporated in the business strategy of most Jordanian banks and financial institutions. Several recommendations were made and certain directions for future research were highlighted.

Keywords: CRM, Customer database, Customer intelligence, Strategic vision

1. Introduction
Customer-Relationship Management (CRM) is generally viewed as a way to integrate sales, marketing and service strategies in order to increase customer benefits and optimize business-customer relationship in the long term (Pulevska, 2008). The practice of CRM is often perceived as a win-win proposition, where a firm can "support worthwhile causes whilst at the same time building the business" (Atkins, 1999). CRM has become the new paradigm of modern marketing, and the main priority and essential tool for many business firms desiring to create long-term and profitable relationships with their clients (Kim et al., 2010; Lostakova; 2009; Morgan, 2009; Constantin and Simona, 2008). Several reasons were behind the adoption of the CRM approach, including the deregulation policy (Yavas & Yasin, 2001), the removal of restrictions between banks, building societies and insurance companies (Speed and Smith, 1992), and the vast expansion in the adoption and the use of information technologies (Bergeron et al, 2008). Furthermore, the changes in the traditional business models to keep abreast of technological development, and the move from mass marketing towards the era of customized marketing have also fostered the adoption of CRM approach (Karkostas et al, 2004). Consequently, many leading firms have taken advantage of utilizing CRM to expand their markets and create loyal customers (Verma and Chaudhur, 2009).

Drawing on 20/80 rule in business, which explains that, on average, only 20% of customers generate 80% of the firm’s profits, Broadbent & Crik (1999) argued that CRM strategy would help identify this most profitable 20% of customers. In that, CRM should be viewed as more than just implementation of IT (Mendoza et al., 2007). Clearly, a large body of literature in B-2-B and B-2-C markets has emphasized the importance and contribution of CRM. Nevertheless, no previous research was made to develop or test models of CRM in the banking and/or financial sector in the Arab World, though few attempts tackled the concept in general terms. For example, a recent study found that banks in Asian countries were adopting CRM approach in a slower pace compared to those in western countries, due to lack of more sophisticated techniques, applications and qualified manpower (Liu, 2003). Evidently, such findings call for detailed investigation of how CRM in developing countries was viewed and handled. Thus, the current research addresses this issue by developing a conceptual framework for CRM and test its constructs in the banking and financial sector in Jordan. The study also investigates the extent to which these
institutions have strategic vision to implement CRM approach; specified goals, strategies and programs to implement CRM approach; required resources to implement CRM; required means for two way communications; necessary knowledge to manage CRM programs; appropriate techniques to measure the success of utilizing CRM and amend CRM strategies; and restrictions that face these firms when applying CRM approach.

The current paper contributes to the existing body of knowledge by drawing on and systematically synthesizing marketing literature to develop a CRM model and empirically test it in the Jordanian context. The model can also be applied in other contexts. Additionally, this paper represents the first empirical study, in Jordan, to specifically tackle the concept of CRM.

2. Previous Research

The literature reveals a positive influence of CRM on consumer buying behavior as evidenced by Barone et al. (2000). For example, Webb and Mohr (1998) found that 30% of respondents reported that CRM influenced their purchase decisions, and Cone (1999) reported similar effects of CRM for 60% of respondents. Ross et al. (1992) showed that CRM had a positive effect on perceptions of advertisers. Richard et al. (2007) pointed out that companies which adopted simple contact management software as a CRM technology initiative had limitations in improving business or relationship performance. While, companies which implemented highly sophisticated CRM technology and integrated collaborative CRM applications were likely to have significant improvement in both business and relationship measures. A study, carried out by Lamparello (2000) in the U.S. banking industry, showed that banks with a customer-oriented strategy were able to obtain high profits. Gandy (2000) found that banks with 'good' CRM were able to maintain substantial competitiveness and presence in the market.

On the negative side, however, many scholars criticized the high failure rate of CRM implementations. The reported reasons included, but not restricted to, lack of strategic vision and planning (Day 2003); lack of the required capabilities to effectively manage and integrate CRM technologies/applications into the sales process of firms (Effmeyer and Johnson 2001). A study by Dickie (2005) reported that only 335 out 1337 companies which implemented CRM were found to have significant improvements in performance. Brown (1999) showed that in 1998, 80% of large US firms owned a data warehouse that could be used for CRM, and that 50% of these firms revealed that their investment in CRM was short of their expectations. Eckerson & Watson (2001) found that 41% of companies with CRM systems were experiencing difficulties in integrating CRM system into their business strategies. A caution was, therefore, made by some scholars. Raman & Pashupati (2004), for example, argued that adopting CRM system did not necessarily guarantee delivering a uniform business values in different industries. Consequently, business policies and marketing conditions should be critically examined to pave the way for effective implementation of CRM. This line of thought is supported by Davids (1999) who found that firms which adopted and implemented CRM approach had actually faced serious difficulties. Reinartz et al. (2004) argued that some of these difficulties stemmed from the inability of CRM approach to deliver profitable growth, and in some extreme cases, damaging existing customer relationships. Other difficulties were due to the mistaken view of CRM approach as an IT project (Johnson, 2004; McKenzie 2001).

Clearly, previous research was indecisive on what actually constitutes a CRM approach, and whether adopting CRM could lead to a better performance and competitiveness under all circumstances. The literature, however, showed conflicting results on the role and contribution of CRM in organizations, leaving a potential to investigate its value in specific parts of the world, as addressed by the current study.

3. Proposed Model of CRM

3.1 CRM definition

According to Kotler (2006), CRM refers to managing customer data base which includes detailed information about clients and managing contact points with clients in order to achieve customer loyalty. Shani and Chalasani (1992) defined RM as a business strategy which focuses on firm's resources, operations, and activities around consumer needs to retain and grow customer base. Peppers & Rogers (1993) viewed CRM as a philosophy that puts customers in the heart of developing firm's products and allocating its resources toward delivering zero-error services to increase customer satisfaction and loyalty. Sheth & Sisodia (1995) presented a broader definition of CRM by stating that it is a firm's knowledge capital and efforts of innovation and creativity in managing its relationships with its clients to achieve customer delight and intimacy.

Clearly, these definitions are mainly concentrated upon customer perceived value, customer loyalty, customer service, customer satisfaction, and customer orientation. However, these definitions do not seem to consider strategic, operational, and tactical factors which could influence the way a firm manages its customer relationships.
In view of these shortcomings and the nature of the current investigation, we present the following definition of CRM from a marketing perspective: CRM is a firm's strategic vision towards managing customer-relationship base, and a set of marketing plans, activities, actions, and sophisticated applications with professional support to attract, motivate, and enhance existing and potential customer relationships for the benefits of both customers and the organization.

3.2 CRM Constructs

Scholars have presented different CRM models based on different components (Curry and Kkolou (2004); Lindgreen (2004); Reichheld, (1996). For example, Sin et al. (2004) developed a CRM model that contains four elements, including consumer characteristics, management of knowledge/data, organizational structure, and CRM substantiation by IT technologies. Wilson (2002) developed CRM a model which starts with the planning phase and ends with strategic vision and goals setting. Wilson asserted that the process of formulating CRM should, at least, contain three important components: a) setting CRM goals, b) choice of a team (or partners), and c) choice/creation of programs for CRM.

In view of the previous discussion, our proposed CRM model will consist of the following eight components (see Appendix):

1. CRM strategic vision
2. CRM specified goals
3. CRM strategy
4. Facilities to implement CRM (Firm's financial and material resources, Infrastructure and Customer intelligence, Database of personal information, marketing information, sales and profit information, demand information, and the size of transactions)
5. Managing CRM programs
6. Two way communications to handle CRM
7. Measuring effectiveness of CRM programs
8. Amending CRM strategy.

The proposed model consists of a series of steps that managers should go through in order to establish a CRM system in an organization. An important component in the model is a CRM strategic vision which should guide a CRM implementation throughout the whole process. Undoubtedly, managing customer relationships relies on appropriate integration of various data sources.

4. Hypothesis for Testing the Proposed CRM Model

In view of the reviewed literature, the following hypotheses are formulated to empirically test the eight constructs of the proposed CRM model in the banking and financial sector in Jordan:

H1: Jordanian banks and financial firms have a strategic vision, specified goals, and strategies to implement CRM.

A study showed that the success of implementing CRM would be improved from 15% to 70% if a firm had a clear CRM strategic vision and if CRM was ‘done right’ based on specified goals and strategies (IBM’s Global CRM Study, 2004). The literature revealed that a CRM strategic vision was considered critical for a CRM project and that clear vision, mission, strategy, core values, goals, and technical requirements for implementing CRM were further considered key factors for success (for example, Brown and Gulycz, 2002; Mukerjee and Singh, 2009).

H2: Jordanian banks and financial firms have the required human, financial and material resources to implement CRM.

Campbell, (2003) found that the mere implementation of CRM without integrating firm's financial and non-financial resources and sharing customer information among various departments would not yield the desired results. Brown and Brown (2000) argued for the importance of integrating firm's processes, techniques, and '3Ws' (web, work flow management, and data warehousing). Greenberg (2001) outlined necessary technology components for implementing CRM. According to Greenberg (2001), these components included front office applications for fulfilling sales, customer data repository, and back office applications for integration and analysis of the data. According to Coltman (2007), data repository that supports collection of customer data, IT systems, computer hardware and software, analysis tools and applications that deal with customer contact points are all key material elements which are needed for adopting CRM approach.

H3: Jordanian banks and financial firms have required database to obtain information regarding their customer-base.
Firms are expected to profile their customers with respect to a) personal information (i.e. age, sex, education, occupation, income, place of residence,…etc); b) size of customer transactions, and c) behavioral indicators of customers including needs, wants, motives, level of loyalty, purchasing patterns, and purchases preferences. Based on such customer profile, firms would be able to distinguish their customers in terms of who should be treated as strategic customers and who should be treated as transactional ones. Strategic customers should obviously receive high attention from the firm when implementing a CRM system.

H4: Jordanian banks and financial firms have customer intelligence to ensure an effective implementation of CRM

Firms need to collect and maintain sufficient customer intelligence to understand customer attitudes in the market (i.e. preferences, loyalty, motives,… etc). This necessitates employees’ skills and expertise to better understand and anticipate changes in customers’ needs and wants. Lasser et al. (2008) maintained that developing customer intelligence would require a general evaluation of current firm-client relationships and necessitate a collaborative and cross-functional team effort. The would help a firm answer key questions, such as What do we currently know about our customers?, What do not we currently know about our customer?, and What do we think we need to know about our customer?.

H5: Jordanian banks and financial firms manage CRM programs effectively

CRM strategies are implemented through action programs which cover issues relating to customer involvement, flexibility in services offered, allocating promotional activities, automation of financial marketing activities, and automation of sales force and transactions. Colton (2007) argued that action programs would be necessary for effective implementation of CRM strategies. Thus, it is important to view a CRM program as a combination of activities requiring managers to concentrate on technical, human, operating, and business capabilities.

H6: Managers in Jordanian banks and financial firms use two way communications to ensure an effective implementation of CRM

Effective implementation of CRM programs requires two way communications to interact directly with customers and receive immediate feedback. This keeps the firm in touch with reality and enables employees to quickly respond to different consumer needs. The use of modern communication technology such as telephone, internet, e-mail, fax, SMS, could also enhance the effectiveness of two way communication.

H7: Managers in Jordanian banks and financial firms are concerned with measuring effectiveness of CRM programs

Once a CRM program is implemented management needs to ensure that program objectives are achieved. Measures of effectiveness can be both quantitative and qualitative. In general, quantitative measures may include, for example, percentage of retaining customers, percentage of lost customers, percentage of sales to customers who are included in a CRM program compared to total sales, percentage of sales to customers who are included in a CRM program compared to customers who are not included, percentage of change in market share. Examples on qualitative measures may also include change in consumer attitudes toward the organization, change in customer loyalty toward organization and its services, change in customer preference toward the organization compared to competitors, and frequency of repeated complaints.

H8: Managers in Jordanian banks and financial firms take corrective action to amend a CRM strategy if necessary

When the actual results of a CRM strategy are not compatible with the expected results, a suitable corrective action becomes necessary to the CRM strategy, particularly when potential implementation problems are ruled out. Often, this can be done through diagnosing the problems encountered, and then trying to deal with obstacles and pitfalls that may potentially hinder the achievement of desired CRM goals.

5. Methodology

5.1 Study population and sampling procedures

The study includes all bank branches and financial institutions operating in the financial industry in three major Jordanian cities, namely Amman- the capital city of Jordan, Irbid- the second largest city after Amman, and Zarqa- the third largest city. The approximate number of bank branches in Jordan is around 450, in addition to 150 other financial institutions (approx.), which mainly include brokers and money exchange firms (www.). The empirical data was collected over a period of two months (February and March, 2010) by means of a self-administrated questionnaire form a convenient sample of 141 bank branches and financial institutions (sampling units) in the three designated areas. One questionnaire was hand-delivered to each sampling unit, and a top manager was asked...
to fill out the questionnaire. The original sample size was 150, out of which 141 was found usable, bringing the response rate to a 94%. The adopted method of data collection was Drop-and-Collect or the so-called Drop-Off (Aaker et al. 2004). Field workers were fully briefed about the operating procedures of this method, which were mainly based on personally delivering and collecting questionnaires from respondents.

5.2 Research tool and measuring scale

A self-administered questionnaire was developed and used to collect the empirical data for the current study. The questionnaire contains eight dimensions, each measures a construct in the proposed CRM model, and designed to test a study hypothesis. Questions in each dimension are set to ask respondents to rate their degree of agreement using a 5-point Likert scale. The scale runs from 'Strongly Disagree', which is the lowest end of the scale and takes the value "1" up to 'Strongly Agree', which is the highest end of the scale and takes the values "5", leaving a scale mid-point of "3", labeled as 'Neutral'. The higher the value of a mean score the more favorable the attitude, and vice versa.

5.3 Statistical procedures

Several statistical techniques were used to analyze the empirical data including Frequency analysis, Descriptive analysis, Reliability Correlation (Cronbach Alpha), and One-Sample t-test. As a decision rule for hypotheses testing, the scale midpoint (3) was used as a criterion value. If the average mean score for the dimension as a whole is below (or equal) 3, then a hypothesis can not be accepted as this indicates low scoring. But, if it is above 3, a hypothesis can then be accepted as this indicates high scoring. One Sample t-test was also used to substantiate the difference between a mean score and the criterion value (3) based on a Statistical Significance level of 5%.

5.4 Validity & Reliability of the research tool

A pilot study was conducted to validate the questionnaire in terms of structure, content, and clarity. Several industry experts and academics were consulted. Based on their comments, several amendments were made to the structure and statements of the questionnaire. Further analysis using Reliability Coefficient showed that Cronbach Alpha was 81%, which is generally acceptable as it exceeds a statistical norm of 60% (http://www.ats.ucla.edu/stat/Spss/faq/alpha.html). A refined draft of the questionnaire was, therefore, produced.

6. Data Analysis and Hypotheses Testing

6.1 The first Dimension: Strategic vision

Table (1) shows descriptive analysis and t-test results of the statements that measure firm's strategic vision (first dimension). The analysis reveals that Jordanian banks and financial institutions were likely to have a clear strategic vision to guide CRM adoption. According the figures in the Table, the most noticeable finding was manifested in the highest level of agreement regarding the statements that related to 'having specified goals toward segmenting customer base' (mean score = 4.89), and 'customized a marketing mix for individual customers' (mean score = 4.79). The percentage agreement levels were 91.5% and 88.5% respectively. Further, the analysis illustrates that the overall mean score of sample firms, which measures the first dimension as a whole, is far above the criterion value (4.62), with the standard deviation showing small dispersion of responses (0.61). These results were further substantiated by One Sample t-test for the dimension as a whole, which revealed a high t-value (23.69) with high statistical significance (Sig. 0.000). This reveals that the overall mean score for those who agreed with all statements that measure this dimension, as a whole, was significantly different from the criterion value. Based on the decision rule for hypotheses testing (already explained in the Methodology under Statistical procedures), these results can support the first hypothesis of the study (H1), which states that "Jordanian banks and financial firms have a strategic vision, specified goals, and strategies to implement CRM".

(INSERT TABLE 1 HERE)

6.2 The second Dimension: Human, financial and material resources

Table (2) shows descriptive analysis and t-test results of the statements that measure the second dimension (human, financial and material resources of a firm). The analysis in the Table shows that Jordanian banks and financial institutions were somehow satisfied with their human, financial and material resources to implement a CRM strategy. Apparently, the analysis in the Table unveils that mean scores of the statements pertaining to this dimension were just above the scale midpoint as they ranged from 3.39 to 3.56, with the lowest value being related to the availability of 'required infrastructure to implement CRM'. Obviously, percentage agreement levels were not very high as they ranged from 72% to 77%. Furthermore, the analysis shows that the overall mean score of sample firms, which measures the second dimension as a whole, is slightly above the criterion value (3.49), with the standard deviation showing a relatively small dispersion of answers (.81). These results were
further substantiated by One Sample t-test for the dimension as a whole, which showed a relatively high t-value (13.1) with high statistical significance (Sig. 0.000). This indicates that the overall mean score for those who agreed with all statements that measure this dimension, as a whole, was significantly different from the criterion value. Based on the decision rule for testing the hypotheses, these results can support the second hypothesis of the study (H2), which states that "Jordanian banks and financial firms have the required human, financial and material resources to implement CRM".

6.3 The third Dimension: Database

Table (3) shows descriptive analysis and t-test results of the statements that measure firm's database (third dimension). The analysis reveals that Jordanian banks and financial institutions were likely to have some limitations in their database to address their information needs regarding their customer-base. The most noticeable finding in the Table reveals that sample firms were seriously lacking data pertaining to 'behavioral indicators about consumer' (mean score 2.56), 'marketing information' (mean score 2.79), and 'market demand indicators' (mean score 2.54). Evidently, percentage agreement levels of these statements were significantly low (37%, 44%, 36% respectively), indicating serious data gaps. Even mean scores for other statements in this dimension were just above the scale midpoint, with percentage agreement levels running from 55% to 66%, as shown in the Table. Further analysis of this dimension shows that the overall mean score of sample firms, which measures the third dimension as a whole, is slightly below the criterion value (2.87), with the standard deviation showing a relatively small dispersion of answers (0.74). These findings were further substantiated by One Sample t-test for the dimension as a whole, which revealed a relatively low t-value (2.48), but with statistical significance (Sig. 0.000). This reveals that the overall mean score for those who disagreed with all statements that measure this dimension, as a whole, was significantly different from the criterion value. According to our decision rule, these results can not support the third hypothesis of the study (H3), which states that "Jordanian banks and financial firms have required database to obtain information regarding their customer-base". Clearly, these firms need to improve their current customer database with respect to, for example, personal information (i.e. age, sex, education, income); size of customer transaction; types of services delivered; profit per customer; indicators of customer loyalty. Furthermore, sufficient marketing information would also enhance their customer database (i.e. purchases preferences, consumer choices).

6.4 The fourth Dimension: Customer intelligence

Table (4) presents descriptive analysis and t-test results of the statements that measure Customer intelligence (fourth dimension). Figures in the Table show that Jordanian banks and financial institutions were not generally happy with quality of customer intelligence as all statements pertaining to this dimension were in the low scoring area, with mean score values below scale midpoint. Obviously, this was likely to limit their capabilities in implementing CRM. For example, the figures show that Customer intelligence with regard to 'probability of making clients loyal' had the lowest mean score (2.23), followed by 'ability to obtain information with regard to customer preferences' (2.54), and 'A firm has a separate department for obtaining information about customers' (2.77). These low mean score values reflected relatively high percentage disagreement levels (64.9%, 56.2%, and 50.3% respectively). Further analysis of this dimension shows that the overall mean score of sample firms, which measures the fourth dimension as a whole, was below the criterion value (2.636), with the standard deviation indicating a relatively small dispersion of answers (0.90). These findings were further substantiated by One Sample t-test for the dimension as a whole, which revealed a t-value of (3.41), with high statistical significance (Sig. 0.000). This shows that the overall mean score for those who disagreed with all statements that measure this dimension, as a whole, was significantly different from the criterion value. According to our decision rule, these results can not support the fourth hypothesis of the study (H4), which states that "Jordanian banks and financial firms have customer intelligence to ensure an effective implementation of CRM".

6.5 The fifth Dimension: Managing CRM programs

Table (5) shows descriptive analysis and t-test results of the statements that measure the fifth dimension (Managing CRM programs). The analysis reveals that Jordanian banks and financial institutions were likely to encounter some limitations in managing CRM programs effectively as some statements pertaining to this dimension had mean scores below scale midpoint. Most noticeably, the findings in the Table reveal that sample firms were encountering some restrictions in 'automation with regard to customer service and transactions' (mean score 2.84), and 'automation with regard to selling activities' (mean score 2.89). In addition, percentage
agreement levels of these statements were significantly low (40% and 38% respectively), indicating some problems in these specific aspects with regard to managing CRM programs. Mean scores for the other statements in this dimension were either slightly below scale midpoint or just above it, with relatively above average percentage agreement levels, which ran from 47% to 71%, as shown in the Table. Further analysis of this dimension shows that the overall mean score of sample firms, which measures the fifth dimension, as a whole, was slightly above the criterion value (3.13), with the standard deviation showing a relatively small dispersion of answers (0.79). These findings were further substantiated by One Sample t-test for the dimension as a whole, which revealed a relatively low t-value (1.95), though statistically significant (Sig. 0.000). This reveals that the overall mean score for those who agreed with all statements that measure this dimension, as a whole, was significantly different from the criterion value. According to our decision rule, these results can support the fifth hypothesis of the study (H5), which states that "Jordanian banks and financial firms manage CRM programs effectively". However, these findings should be interpreted with some caution, since mean scores for some statements in this dimension were slightly below the criterion value.

(INSERT TABLE 5 HERE)

6.6 The sixth Dimension: Two way communications

This dimension is measured by a single statement. Table (6) shows descriptive analysis and t-test results of this statement which asks if 'A firm uses two way communications with customers'. The analysis in the Table shows that managers in Jordanian banks and financial institutions were likely to use two way communications with customers in managing CRM. According the figures in the Table, the mean score of sample firms with regard to this statement was above the criterion value (3.76), with a relatively high percentage agreement level (74%), and standard deviation showing small dispersion of responses (0.87). These results were further substantiated by One Sample t-test for this dimension, which revealed a relatively high t-value (16.4) with high statistical significance (Sig. 0.000). This reveals that the mean score for those who agreed with using two way communications was significantly different from the criterion value. Based on our decision rule, we can accept the sixth hypothesis of the study (H6), which states that "Managers in Jordanian banks and financial firms use two way communications to ensure an effective implementation of CRM".

(INSERT TABLE 6 HERE)

6.7 The seventh dimension: Measuring effectiveness of CRM

Table (7) presents descriptive analysis and t-test results of the statements that measure the seventh dimension (Measuring the effectiveness of CRM). Figures in the Table show that Jordanian banks and financial institutions were not generally concerned with measuring effectiveness of CRM programs, as most statements pertaining to this dimension were in the low scoring area, with mean score values below criterion value. For example, the analysis in the Table shows that responding firms were not much interested in measuring percentage of retaining customers (2.97), measuring percentage of lost customers (2.77), measuring percentage of sales to customers who were included in CRM compared to those who are not included (2.48), and measuring percentage change in market share (2.89). Clearly, this was likely to keep management ill-informed whether desired results of CRM programs were obtained. These low mean score values were enhanced by relatively low percentage agreement levels (51%, 38%, 33%, and 44% respectively). Further analysis of this dimension illustrates that the overall mean score of sample firms, which measures the seventh dimension as a whole, was below the criterion value (2.636), with the standard deviation showing a relatively small dispersion of answers (0.74). These findings were further substantiated by One Sample t-test for the dimension as a whole, which revealed a t-value of (3.35), with high statistical significance (Sig. 0.000). This shows that the overall mean score for those who disagreed with all statements that measure this dimension, as a whole, was significantly different from the criterion value. According to our decision rule, these results can not support the seventh hypothesis of the study (H7), which states that "Managers in Jordanian banks and financial firms are concerned with measuring effectiveness of CRM programs". Apparently, these firms are required to show more concern for measuring effectiveness. For example, they need to set appropriate performance standards in order to ensure proper implementation of CRM. These standards may include quantitative aspects, such as percentage of retaining/lost customers; percentage of sales to customers; percentage of change in market share. Behavioral standards may also include several aspects, such as overall change in customers perception toward the bank and its financial products; change in customer loyalty; and frequency of repeated customer complaints over specific issues.

(INSERT TABLE 7 HERE)

6.8 The eighth dimension: Amending CRM strategy

Table (8) shows descriptive statistics and t-test results of the two statements that measure the eighth dimension
(Amending CRM strategy). Figures in the Table reveal that Jordanian banks and financial institutions were not generally motivated to adjust a CRM strategy when results were undesirable, as the two statements pertaining to this dimension were in the low scoring area, with mean score values below criterion value. For example, the findings in the Table reveal that responding firms were not likely to have a clear or definite mechanism to detect signals of potential failure in CRM strategy (mean score 2.91) with little interest in taking corrective actions to modify a CRM strategy with undesirable results (mean score 2.98). These low mean scores were enhanced by relatively low percentage agreement levels (46% and 48% respectively). Clearly, these findings were likely to indicate a lack of motivation to modify an unpopular CRM strategy, and consequently take things for granted. Further analysis of this dimension illustrates that the overall mean score of sample firms, which measures the eighth dimension as a whole, was just below the criterion value (2.95), with the standard deviation showing a relatively small dispersion of answers (1.01). These findings were further substantiated by One Sample t-test for the dimension as a whole, which revealed a t-value of (5.25), with high statistical significance (Sig. 0.000). This shows that the overall mean score for those who disagreed with all statements that measure this dimension, as a whole, was significantly different from the criterion value. According to our decision rule, these results can not support the eighth hypothesis of the study (H8), which states that "Managers in Jordanian banks and financial firms take corrective action to amend a CRM strategy if necessary". However, caution must be exercised in interpreting the findings for this dimension, as mean scores for both statements were not far below the criterion value.

7. Conclusions and Implications
This study focused attention on the CRM strategy with reference to the financial industry in Jordan. The overall findings show that Jordanian banks and financial institutions were likely to have a clear CRM strategic vision with specific goals and programs, and maintain necessary resources to establish and manage CRM programs. The analysis, however, revealed that these organizations were not likely to have a sufficient marketing database, nor customer intelligence, with little motivation to monitor effectiveness of CRM programs or take corrective actions to adjust CRM strategies. Further analysis indicated that the CRM concept did not seem to be well incorporated in the business strategy of most Jordanian banks and financial institutions.

Clearly, it appears that the CRM concept was still in its infancy stage in the Jordanian financial industry as most managers were likely to view it as mere implementation of IT to manage customer relationships. Possibly, inadequate investment in customer service, coupled with little understanding of the CRM concept, insufficient marketing database, and poor measurement systems, could have been behind this phenomenon in this important industry in Jordan. A more consumer-oriented strategy in customer service would, therefore, be needed to improve understanding of the merits of CRM strategy, and incorporate it into the business strategy in this industry. For example, an effective CRM strategy would be enhanced by sufficient marketing database that relies on high quality consumer information with regard to demographic, attitude, loyalty, and buying behavior characteristics. Information sharing among different departments would also be critical to the success of CRM, and IT would just be a component in the overall CRM system. Finally, the proposed CRM model, in this study, may present a detailed guide to help Jordanian managers adopt an effective CRM strategy in their organizations, thus encourage them to incorporate it in their business strategy.

7.1 Recommendations for Future Research
Future research may draw on the proposed CRM model, in this study, to address specific limitations and obstacles that managers, in other Jordanian industries, encounter in CRM implementation. The specific role and support of top management may represent another potential horizon for future research work. Cooperation of employees in implementing CRM programs may also be an area for future investigation.

References


Table 1. Descriptive analysis, agreement levels, and 'One Sample t-test' of sample firms regarding Dimension 1: Strategic vision

<table>
<thead>
<tr>
<th>Dim. 1: Strategic vision</th>
<th>Mean score</th>
<th>Std. Dev.</th>
<th>T value</th>
<th>Sig.</th>
<th>Disagree (%)</th>
<th>Neutral (%)</th>
<th>Agree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A firm has a clear strategic vision to implement CRM</td>
<td>4.62</td>
<td>.65</td>
<td></td>
<td></td>
<td>11.5</td>
<td>3</td>
<td>85.5</td>
</tr>
<tr>
<td>A firm has specified and clear goals to implement CRM</td>
<td>4.45</td>
<td>.72</td>
<td></td>
<td></td>
<td>12.5</td>
<td>5.5</td>
<td>82</td>
</tr>
<tr>
<td>A firm has specified goals regarding strategic customers</td>
<td>4.21</td>
<td>1.02</td>
<td></td>
<td></td>
<td>18.7</td>
<td>2.3</td>
<td>79</td>
</tr>
<tr>
<td>A firm has specified goals toward segmenting its customer base</td>
<td>4.89</td>
<td>.92</td>
<td></td>
<td></td>
<td>8.5</td>
<td>0</td>
<td>91.5</td>
</tr>
<tr>
<td>A firm has specified goals toward customizing a marketing mix for individual customers</td>
<td>4.79</td>
<td>.88</td>
<td></td>
<td></td>
<td>7.8</td>
<td>3.7</td>
<td>88.5</td>
</tr>
<tr>
<td>A firm has specified strategy to implement CRM</td>
<td>4.72</td>
<td>.76</td>
<td></td>
<td></td>
<td>7.5</td>
<td>4.6</td>
<td>87.3</td>
</tr>
<tr>
<td>Firm's employees at all levels accept the concept of CRM</td>
<td>4.68</td>
<td>.98</td>
<td></td>
<td></td>
<td>10.9</td>
<td>2.2</td>
<td>86.9</td>
</tr>
<tr>
<td><strong>Dimension as a whole</strong></td>
<td><strong>4.62</strong></td>
<td><strong>.61</strong></td>
<td><strong>23.69</strong></td>
<td><strong>0.000</strong></td>
<td><strong>11.1</strong></td>
<td><strong>3.04</strong></td>
<td><strong>85.81</strong></td>
</tr>
</tbody>
</table>

n = 141  
Mean Score is out of 5  
Criterion value = 3

Table 2. Descriptive analysis, agreement levels, and 'One Sample t-test' of sample firms regarding Dimension 2: Human, financial and material resources

<table>
<thead>
<tr>
<th>Dim. 2: Human, financial and material resources</th>
<th>Mean score</th>
<th>Std. Dev.</th>
<th>T value</th>
<th>Sig.</th>
<th>Disagree (%)</th>
<th>Neutral (%)</th>
<th>Agree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A firm has required financial resources to implement CRM</td>
<td>3.51</td>
<td>.98</td>
<td></td>
<td></td>
<td>22.3</td>
<td>2.1</td>
<td>75.6</td>
</tr>
<tr>
<td>A firm has the required infrastructure to implement CRM</td>
<td>3.39</td>
<td>1.05</td>
<td></td>
<td></td>
<td>24</td>
<td>3.5</td>
<td>72.5</td>
</tr>
<tr>
<td>A firm has IT facilities to implement CRM</td>
<td>3.56</td>
<td>.86</td>
<td></td>
<td></td>
<td>21.2</td>
<td>1.8</td>
<td>77</td>
</tr>
<tr>
<td>A firm has skilled human resources to implement CRM</td>
<td>3.48</td>
<td>.78</td>
<td></td>
<td></td>
<td>22.6</td>
<td>2.9</td>
<td>74.5</td>
</tr>
<tr>
<td><strong>Dimension as a whole</strong></td>
<td><strong>3.49</strong></td>
<td><strong>.81</strong></td>
<td><strong>13.1</strong></td>
<td><strong>0.000</strong></td>
<td><strong>22.5</strong></td>
<td><strong>2.57</strong></td>
<td><strong>74.9</strong></td>
</tr>
</tbody>
</table>

n = 141  
Mean Score is out of 5  
Criterion value = 3
Table 3. Descriptive analysis, agreement levels, and 'One Sample t-test' of sample firms regarding Dimension 3: database

<table>
<thead>
<tr>
<th>Dim. 3: Database</th>
<th>Mean score</th>
<th>Std. Dev.</th>
<th>T value</th>
<th>Sig.</th>
<th>Disagree (%)</th>
<th>Neutral (%)</th>
<th>Agree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A firm has database regarding behavioral indicators of customers</td>
<td>2.56</td>
<td>.87</td>
<td></td>
<td></td>
<td>58.9</td>
<td>4.1</td>
<td>37</td>
</tr>
<tr>
<td>A firm has database regarding personal information of customers</td>
<td>3.15</td>
<td>.85</td>
<td></td>
<td></td>
<td>27.5</td>
<td>6.5</td>
<td>66</td>
</tr>
<tr>
<td>A firm has database regarding marketing information of customers</td>
<td>2.79</td>
<td>1.08</td>
<td></td>
<td></td>
<td>52</td>
<td>4</td>
<td>44</td>
</tr>
<tr>
<td>A firm has database regarding the size of sales and profits</td>
<td>3.08</td>
<td>.67</td>
<td></td>
<td></td>
<td>39.4</td>
<td>5.6</td>
<td>55</td>
</tr>
<tr>
<td>A firm has database regarding the size of transaction per customer</td>
<td>3.12</td>
<td>1.05</td>
<td></td>
<td></td>
<td>36</td>
<td>3</td>
<td>61</td>
</tr>
<tr>
<td>A firm has database regarding market demand indicators</td>
<td>2.54</td>
<td>.90</td>
<td></td>
<td></td>
<td>59.9</td>
<td>4.3</td>
<td>36</td>
</tr>
<tr>
<td>Dimension as a whole</td>
<td>2.87</td>
<td>.74</td>
<td>2.48</td>
<td>0.000</td>
<td>46.5</td>
<td>4.58</td>
<td>48</td>
</tr>
</tbody>
</table>

n = 141
Mean Score is out of 5
Criterion value = 3

Table 4. Descriptive analysis, agreement levels, and 'One Sample t-test' of sample firms regarding Dimension 4: Customer intelligence

<table>
<thead>
<tr>
<th>Dim. 4: Customer intelligence</th>
<th>Mean score</th>
<th>Std. Dev.</th>
<th>t value</th>
<th>Sig.</th>
<th>Disagree (%)</th>
<th>Neutral (%)</th>
<th>Agree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A firm has a separate department for obtaining information about customers</td>
<td>2.77</td>
<td>.87</td>
<td></td>
<td></td>
<td>50.3</td>
<td>8.7</td>
<td>41</td>
</tr>
<tr>
<td>A firm has the ability to obtain information with regard to customer preferences</td>
<td>2.54</td>
<td>.85</td>
<td></td>
<td></td>
<td>56.2</td>
<td>5.8</td>
<td>38</td>
</tr>
<tr>
<td>A firm has information about the probability of making clients loyal</td>
<td>2.23</td>
<td>1.08</td>
<td></td>
<td></td>
<td>64.9</td>
<td>7.1</td>
<td>28</td>
</tr>
<tr>
<td>A firm employees receive the required training to understand customer needs</td>
<td>2.85</td>
<td>.67</td>
<td></td>
<td></td>
<td>50.4</td>
<td>3.6</td>
<td>46</td>
</tr>
<tr>
<td>A firm employees are equipped with the required techniques to cope with customers</td>
<td>2.79</td>
<td>1.05</td>
<td></td>
<td></td>
<td>71.2</td>
<td>6.3</td>
<td>22</td>
</tr>
<tr>
<td>Dimension as a whole</td>
<td>2.636</td>
<td>.90</td>
<td>3.41</td>
<td>0.000</td>
<td>58.6</td>
<td>6.3</td>
<td>35.1</td>
</tr>
</tbody>
</table>

n = 141
Mean Score is out of 5
Criterion value = 3
Table 5. Descriptive analysis, agreement levels, and 'One Sample t-test' of sample firms regarding Dimension 5: Managing CRM programs

<table>
<thead>
<tr>
<th>Dim.5: Managing CRM programs</th>
<th>Mean score</th>
<th>Std. Dev.</th>
<th>t value</th>
<th>Sig.</th>
<th>Disagree (%)</th>
<th>Neutral (%)</th>
<th>Agree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A firm has certain software to implement CRM</td>
<td>3.55</td>
<td>1.14</td>
<td></td>
<td>26.3</td>
<td>6.7</td>
<td>67</td>
<td></td>
</tr>
<tr>
<td>A firm respects and takes consumer suggestions seriously</td>
<td>2.92</td>
<td>1.05</td>
<td></td>
<td>43.9</td>
<td>9.1</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>A firm has clear mechanism for handling customer complaints</td>
<td>3.62</td>
<td>.99</td>
<td></td>
<td>23.3</td>
<td>5.7</td>
<td>71</td>
<td></td>
</tr>
<tr>
<td>A firm has flexibility in the quality of services offered</td>
<td>2.99</td>
<td>10.6</td>
<td></td>
<td>40.1</td>
<td>8.9</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>A firm is automated with regard to selling activities</td>
<td>2.89</td>
<td>.85</td>
<td></td>
<td>34</td>
<td>16</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>A firm is automated with regard to customer service and transactions</td>
<td>2.84</td>
<td>.93</td>
<td></td>
<td>48.5</td>
<td>11.5</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>

Dimension as a whole | 3.13 | .79 | 1.95 | 0.000 | 36 | 9.65 | 55 |

n = 141
Mean Score is out of 5
Criterion value = 3

Table 6. Descriptive analysis, agreement levels, and 'One Sample t-test' of sample firms regarding Dimension 6: Two way communications

<table>
<thead>
<tr>
<th>Dim. 6: Two way communications</th>
<th>Mean score</th>
<th>Std. Dev.</th>
<th>T value</th>
<th>Sig.</th>
<th>Disagree (%)</th>
<th>Neutral (%)</th>
<th>Agree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A firm uses two way communications with customers</td>
<td>3.76</td>
<td>.87</td>
<td>16.4</td>
<td>0.000</td>
<td>20.7</td>
<td>5.3</td>
<td>74</td>
</tr>
</tbody>
</table>

n = 141
Mean Score is out of 5
Criterion value = 3

Table 7. Descriptive analysis, agreement levels, and 'One Sample t-test' of sample firms regarding Dimension 7: Measuring effectiveness of CRM

<table>
<thead>
<tr>
<th>Dim. 7: Measuring effectiveness of CRM</th>
<th>Mean score</th>
<th>Std. Dev.</th>
<th>t value</th>
<th>Sig.</th>
<th>Disagree (%)</th>
<th>Neutral (%)</th>
<th>Agree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A firm measures the % of retaining customers</td>
<td>2.97</td>
<td>.62</td>
<td></td>
<td>44</td>
<td>5</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>A firm measures the % of lost customers</td>
<td>2.77</td>
<td>1.13</td>
<td></td>
<td>43.9</td>
<td>9.1</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>A firm measures the % of sales to customers who are included in CRM compared to total sales</td>
<td>3.02</td>
<td>.84</td>
<td></td>
<td>38</td>
<td>8</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>A firm measures the % of sales to customers who are included in CRM compared to customers who are not included</td>
<td>2.48</td>
<td>1.01</td>
<td></td>
<td>56</td>
<td>11</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>A firm measures the % change in market share</td>
<td>2.89</td>
<td>.96</td>
<td></td>
<td>47</td>
<td>9</td>
<td>44</td>
<td></td>
</tr>
</tbody>
</table>

Dimension as a whole | 2.83 | .74 | 3.35 | 0.000 | 45.78 | 8.42 | 44 |

n = 141
Mean Score is out of 5
Criterion value = 3
Table 8. Descriptive analysis, agreement levels, and 'One Sample t-test' of sample firms regarding Dimension 8: Amending CRM strategy

<table>
<thead>
<tr>
<th>Dim.8: Amending CRM strategy</th>
<th>Mean score</th>
<th>Std. Dev.</th>
<th>T value</th>
<th>Sig.</th>
<th>Disagree (%)</th>
<th>Neutral (%)</th>
<th>Agree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A firm has a mechanism to detect signals of potential failure in CRM strategy</td>
<td>2.91</td>
<td>1.07</td>
<td>41</td>
<td>13</td>
<td>46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A firm takes necessary actions to correct a CRM strategy when it yields undesirable results</td>
<td>2.98</td>
<td>.89</td>
<td>34</td>
<td>18</td>
<td>48</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dimension as a whole</strong></td>
<td><strong>2.95</strong></td>
<td><strong>1.01</strong></td>
<td><strong>5.25</strong></td>
<td><strong>0.000</strong></td>
<td><strong>37.5</strong></td>
<td><strong>15.5</strong></td>
<td><strong>47</strong></td>
</tr>
</tbody>
</table>

n = 141  
Mean Score is out of 5  
Criterion value = 3

Figure 1. The proposed CRM Model